



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,112	12/23/2004	Ole Kaae Hansen	P70305US0	9507
136 7590 09/14/2007 JACOBSON HOLMAN PLLC 400 SEVENTH STREET N.W. SUITE 600 WASHINGTON, DC 20004			EXAMINER CLARK, AMY LYNN	
			ART UNIT 1655	PAPER NUMBER
			MAIL DATE 09/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,112	<b>Applicant(s)</b> HANSEN, OLE KAAE	
	<b>Examiner</b> Amy L. Clark	<b>Art Unit</b> 1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

### ***Claim Rejections - 35 USC § 103***

Claims 1, 2 and 4-8 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Oura et al. (A\*, US 4,229,483), in view of Noller (U\*, Ann Rev Biochem. 1945; 14: 383-406) and Vogel et al. (V\*, "Fermentation and Biochemical Engineering Handbook-Principles, Process Design and Equipment (2<sup>nd</sup> Edition)").

Oura teaches a method of preparing an aqueous extract of fine shea nut meal (please note that shea nut meal is a saponin-containing waste product from a shea butter tree and that the shea nut meal is filtered and ground prior to extraction, See column 2, lines 48-51 and lines 55-66) comprising washing the shea nut meal with water, wherein the amount of water is more than 2.5 times as much as volume of the shea nut meal (See column 3, lines 22-24), mixing the shea nut meal with a 10-99% (w/v) aqueous ethanol solution, whereby the alcohol solution may be used in an amount

Art Unit: 1655

of 0.05 to 5 times as much as the volume of shea nut meal (See column 3, lines 29-30 and 33-35) in the presence of an alkali, wherein the alkali is used in the form of an aqueous solution (See column 3, lines 59-68 and continued into column 4, lines 1-8), which reads on buffer, at a pH of 7.15 or 7.41 (See column 6, table 2) and the solids can be removed by filtration from a liquid medium (See column 7, Example 32). Oura does not expressly teach that the aqueous extract contains saponins, however, saponins are inherent to shea nut press cake (See Noller, page 385), which is synonymous with shea nut meal. Oura further teaches the washing of the shea nut meal can be carried out at a temperature of 10 to 80 °C (See column 3, lines 19-22) and that treatment with an alcohol solution can be carried out a temperature of 10 to 80 °C or by soaking the shea nut meal in the alcohol solution for a period of 30 minutes to overnight (See column 3, lines 30-39). Oura further teaches that the solution can be treated to 100 to 160 °C for a period of 10 to 60 minutes (See column 3, lines 40-45). Oura further teaches that the solution can be filtered under reduced pressure and after cooling the solution, the shea nut meal may be dried and/or ground (See column 3, lines 55-58). Oura further teaches that the shea nut meal treated by heating is present in a solution in an amount of up to 10% by weight, usually in a range of 0.5-5% by weight and may be used in a large amount (See column 5, lines 2-6). Oura further teaches that the coloring composition may be in the form of a powder, pellets, a slurry, an emulsion, an aqueous suspension or the like (See column 4, lines 46-54). Oura further teaches that shea nut meal may be treated with a medium, such as water, wherein the water used is in an amount of more than 2.5 times and 0.05 to 5 times, respectively, the

Art Unit: 1655

amount of the shea nut meal to be treated (See column 9, claim 1). Oura further teaches that the solution of water and shea nut meal may be subject to heat treatment and the heat treatment may be carried out in the presence of a 1-10% by weight 1N aqueous solution of acid (See column 9, claims 2-4 and continued into column 10).

Vogel teaches that solid liquid separation process can be accomplished by filtration or centrifugation (See page 558). Vogel further teaches that evaporation is the removal of a solvent as a vapor from a solution or slurry and that the demand of an evaporator is to concentrate a feed stream by removing a solvent which is vaporized in the evaporator and, for the greatest number of evaporator systems, the solvent is water and that the "bottoms" product is a concentrated solution, a thick liquor, or possibly a slurry and is most usually the desired and valuable product (See page 476).

The teachings of Oura, Noller and Vogel are set forth above and applied as before. Oura does not teach an incubation step is performed at a temperature of between 15 and 95 °C and over a period of between 10 minutes and 5 hours, nor does Oura teach removing solids by centrifugation, nor does Oura teach obtaining an extract containing at least 1 % by weight dry matter, nor does Oura teach further concentrating the shea nut meal by evaporation. However, at the time the invention was made, it would have been obvious to one of ordinary skill in the art and one would have been motivated and had a reasonable expectation of success to modify the method as taught by Oura to provide the instantly claimed invention because at the time the invention was made, it was known within the art that upon heating the solution, the solution could be separated from the solids and that the shea nut meal solution could subsequently be

dried. Therefore, it would have been merely a matter of judicious selection to one of ordinary skill in the art at the time the invention was made to modify the referenced composition because it would have been well in the purview of one of ordinary skill in the art practicing the invention to pick and choose a temperature and time period over which a solution is incubated, to pick and choose a method of obtaining a saponin-rich extract of shea nut meal by separating solids from a liquid solution, to pick and choose an amount of dry matter present in an extract and to pick and choose a suitable method for obtaining or drying (evaporating the solvent from) the shea nut meal extract, as clearly taught by Oura and Vogel. Furthermore, since centrifugation is a suitable alternative to filtration for separating solids from liquids and concentration by evaporation is a suitable method for drying or concentrating a solution, as was well known in the art at the time the invention was made, as clearly taught by Vogel, the claimed invention is no more than the routine optimization of a result effect variable.

The result-effective adjustment of particular conventional working conditions (e.g., adjusting the amount of time a solution is incubated, to pick and choose a method of obtaining a solution from solids, to pick and choose the amount of dry matter present in an extract and to pick and choose a method for drying or concentrating an extract) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Based upon the beneficial teachings of the cited references, the skill of one of ordinary skill in the art, and absent evidence to the contrary, there would have been a reasonable expectation of success to result in the claimed invention.

Accordingly, the claimed invention was prima facie obvious to one of ordinary skill in the art at the time the invention was made, especially in the absence of evidence to the contrary.

**No claims are allowed.**

### ***Conclusion***

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy L. Clark whose telephone number is (571) 272-1310. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1655

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amy L. Clark  
AU 1655

Amy L. Clark  
September 1, 2007

  
MICHELE FLOOD  
PRIMARY EXAMINER